

UNITED STATES DISTRICT COURT
EASTERN DISTRICT OF WISCONSIN

UNITED STATES OF AMERICA and
STATE OF WISCONSIN,

Plaintiffs,

v.

Case No. 10-C-910

NCR CORP. et al.,

Defendants.

DECISION AND ORDER

In 2010, the United States and the State of Wisconsin (the Governments) sued NCR Corporation and several other potentially responsible parties to enforce compliance with a Unilateral Administrative Order issued by the EPA in 2007. Although much has happened already in this lawsuit on that score, until now the remedy ordered by the Governments—a remedy that favors dredging and removal of contaminated material rather than capping or other, less aggressive, measures—has not been subject to judicial review. Certain of the Defendants have now filed a motion seeking summary judgment against the Governments on the ground that the administrative record is fatally incomplete due to the destruction of certain computer model data and programs that were instrumental in developing the remedy imposed. In the alternative, these Defendants ask that they be allowed to provide additional evidence to supplement the administrative record. For the reasons given below, the motion will be denied.

I. Background

“The purpose of the remedy selection process is to implement remedies that eliminate, reduce, or control risks to human health and the environment.” 40 CFR § 300.430(a). The Governments’ basic theory is that after fish are exposed to PCB-laden Fox River sediment, the PCBs flow to humans, posing an unacceptable risk to humans’ health. This is not especially controversial as a basic premise; however, the *extent* of the risk based on given concentrations and locations of PCBs within river sediment is very controversial. The Defendants believe (in shorthand) that many areas of the River did not need to be dredged because capping, a less-expensive undertaking, would control the release of PCBs into the River and would not stir them up in the way that dredging might.

As suggested earlier, however, the actual merits of the remedy selected by the Governments are not presently before me. Instead, the question is whether that remedy may be reviewed meaningfully when certain parts of the computer model that guided selection of that remedy are absent from the record. Thus, although the particulars of the remedy imposed are not before me, the *process* of selecting that remedy is, and understanding that process requires an assessment of what kinds of data and assumptions were used in crafting the remedy.

Because the flow of PCBs from a riverbed into humans is such a complex process, the data and assumptions were incorporated into various computer models that could predict long-term PCB concentrations over a hundred years. The fundamental model at issue here is called the wLFRM (Whole Lower Fox River Model, or, to economize on abbreviations, just “the Model”). The Governments used this model to simulate the movement of PCBs within the river, or what people in the aquatic modeling business call “fate and transport.” The results of this model were then

plugged into three other models, including two “food chain” models that simulated the accumulation of PCBs in the aquatic food chain in the river and in Green Bay. With these models, the Governments could then test different remedial alternatives (including *no* remedy at all) to see which ones were the most efficacious and cost-effective in mitigating the environmental danger. (Zhang Decl., ¶ 9-10.)

The models were developed over several years, based on field studies and calibration based on known data. For instance, the DNR could compare the model’s predictions to actual data in the River, which allowed its scientists to calibrate the model to achieve more accurate results. (Zhang Decl., ¶ 17-18.) It is essentially undisputed that the wLFRM formed the basis of many of the predictions the Governments used to select the remedy.

A computer model, of course, is not a physical “thing” in the traditional sense—it is more akin to a process. The Model in this case includes a computer program known as IPX, input files for that program, and the data ultimately generated from that program based on those inputs. (Zhang Decl. ¶ 26.) The inputs, in turn, were created with other computer programs called “pre-processors.” These programs calculated such things as river flow and rates of particle suspension. These pre-processors then generated the data files that became the inputs into the Model.

Once the IPX program ran the inputs, it produced data files predicting the concentration of PCBs in the River at various times. These data files were then processed by “post-processor” programs, which in turn produced files that were used as inputs in the additional models described above. As one of the Defendants’ experts succinctly summarized things, “The wLFRM is a series of preprocessors, models and postprocessors designed to work in concert with one another in order to model the PCB fate and transport in the river and to pass these results to the FRFood Model.”

(Dkt. # 449 ¶ 11.) In short, all of these components could reasonably be called part of “the” Model: “Similar to an automobile, the IPX model is the engine, an important component, but it will not run if does not have a fuel pump or spark plugs (preprocessors) and the wheels will not turn and make the automobile move forward without the transmission and axles (postprocessors).” (*Id.*)

As noted at the outset, some of the files just described are *not* part of the administrative record. In particular, the input files for the pre-processor programs are absent, as are the output files from the IPX program. Similarly, one of the two post-processor programs, called Exposure.f, is also absent. The Wisconsin DNR’s Dr. Zhang states that because the *input* files do exist, however, anyone with the IPX program could re-create the results by simply running the existing input files through it. (Zhang Decl., ¶ 40.) And, because the heretofore missing post-processor program “Exposure.f” has recently been provided to the Defendants, the input files for the additional models may also be generated.

Thus [Dr. Zhang argues], because the Defendants have a copy of the input files for the final model runs, a copy of the IPX computer program code, and a copy of both post-processors, it is possible for them to run the model using the inputs from the model runs that formed the basis of EPA’s and WDNR’s selection of PCB cleanup levels for the Site, assuming they use a computer capable of running the IPX 2.7.4 program. Based on those model runs, they can also use the post-processors to reproduce the table files and subsequently the *.rr files from the model runs that were used as input files for the other models.

(Zhang Decl. ¶ 43.)

There are two central problems with Zhang’s statement, the Defendants believe. First, even if the record contains the files input into the IPX program, and even if all the preprocessors have been provided, the record remains devoid of information about the input files that went into the preprocessor programs. A second problem is that the Exposure.f program that was recently

provided to the Defendants (which is not in the record) does not appear to be the same as the one used to generate the final Model. At least, according to the Defendants' expert Dr. Annear, there are discrepancies in the input files used for Exposure.f that prevent the Defendants from processing the Model and recreating the Governments' results.

II. Analysis

The Defendants argue that they are entitled to summary judgment because the incompleteness of the administrative record means that this Court will not be able to meaningfully review the remedy the Governments selected. In the alternative, they ask that they be allowed to supplement the record by taking further discovery and providing expert testimony.

A. Summary Judgment

The Defendants argue that the absence of a complete Model in the record precludes the Governments from demonstrating that the Model is scientifically viable, which means this Court cannot determine whether the remedy selected is reliable, risk-based or cost-effective, as required by CERCLA. The Court must be able to "satisfy [itself] that the agency 'examined the relevant data and articulated a satisfactory explanation for its action including a rational connection between the facts found and the choice made.'" *Bagdonas v. Dept. of Treasury*, 93 F.3d 422, 426 (7th Cir. 1996) (citations omitted).

If this Court were an independent laboratory charged with reproducing the Governments' model results, the Defendants would be on firmer footing. But of course that is not the charge that Congress has given to the courts in CERCLA cases. For a variety of sensible reasons, courts are asked merely to determine whether the remedy selected was arbitrary and capricious, that is,

whether the remedy was the product of bad faith or other improper motives, or whether there are glaring errors and omissions in the record. “Ours should not be the task of engaging in a *de novo* review of the scientific evidence pro and con on each proposed remedy in the hazardous substance arena. The federal courts have neither the time nor the expertise to do so, and CERCLA has properly left the scientific decisions regarding toxic substance cleanup to the President's delegatee, the EPA administrator and his staff.” *United States v. Akzo Coatings of Am., Inc.*, 949 F.2d 1409, 1424 (6th Cir.1991). As the Supreme Court has held, “[i]t is not our task to determine what decision we, as Commissioners, would have reached. Our only task is to determine whether the Commission has considered the relevant factors and articulated a rational connection between the facts found and the choice made.” *Baltimore Gas and Elec. Co. v. Natural Resources Defense Council, Inc.*, 462 U.S. 87, 105 (1983). “When examining this kind of scientific determination, as opposed to simple findings of fact, a reviewing court must generally be at its most deferential.” *Id.* at 103.

That the administrative record does not allow complete replication of the results of one of the Governments’ models does not, *per se*, mean a court is unable to determine from the *rest* of the record whether the Governments’ action was arbitrary or capricious. As Dr. Zhang describes in great detail, the Model was developed over more than ten years of field studies and calibrated to known PCB concentrations in the River. The Model was not a secret program run in a mysterious back room in some nameless government building, but was instead the product of years of work and interaction with several interested parties, including some of the Defendants.

The Defendants take issue with a number of Dr. Zhang’s explanations, but ultimately their objections go to the *correctness* of the remedy far more than the process. Here, for example, the

Defendants note that the Governments tested 0.125 ppm, 0.25 ppm, 0.5 ppm, 1 ppm and 5 ppm, but did not test remedies at levels between 1 and 5 ppm. “Without a working copy of the model [they argue] it is impossible to verify that a remedial action level of 1 ppm is appropriate.” (Def. Br. at 20.) But “appropriate” is not the question here, because “appropriate” suggests a focus on whether the result is the best possible result (assuming that is even knowable). The question, instead, is whether the Government was reasonable in its method of choosing that remedy and whether the remedy has a rational (rather than arbitrary or capricious) basis. That is, did it consider relevant evidence and viewpoints, or did it rush through the process? To show that the remedy was arbitrary and capricious, the Defendants will need to show not just that the remedy was not the best one, or the “appropriate” one, but that the remedy was so erroneous as to be an arbitrary one.

Arbitrary and capricious are terms that describe the *manner* of remedy selection more than anything else. Arbitrary means the Government simply threw darts or flipped a coin, selecting the remedy without a basis in reason or science. Capricious means it rushed through the process or made a sudden, knee-jerk decision without hearing enough evidence. The existence of a perfectly reproducible model is not necessary to determine whether the Government’s actions were arbitrary or capricious.

For example, it is well-known that many scientific questions do not have perfect, settled answers, despite countless studies and millions of dollars in research: the age of the universe, the origin of language, the causes and / or existence of climate change, or even the widespread use of statins to control cholesterol—these questions are the subject of countless scientific studies and ongoing, sometimes heated debates. These studies often lead to diametrically opposite conclusions, despite being undertaken by eminent scientists using well-accepted and rigorous methods. A panel

of experts asked to review a given study might well want to look at every model used to achieve the result; they might even want to replicate the study in all material respects before declaring the result sound. By contrast, if the question is limited to whether the result achieved by the study was arbitrary and capricious, a reviewing body may look at the methods used and other testimonial evidence to determine whether the process was undertaken using appropriate scientific methods *without* needing to subject the actual models to re-testing. It could review a lengthy record detailing the deliberative process and hear from those involved in the study to reach a conclusion that the process was duly serious and based on sound scientific principles. The fact that certain aspects of the process may be open to debate would rarely undermine the validity of the process itself.

For these reasons, I conclude that a reviewing court may undertake a meaningful arbitrary-and-capricious review of the remedy process even if significant parts of a key model are absent from the administrative record. Accordingly, the Defendants are not entitled to summary judgment.

B. Supplementation of the Record

In the alternative, the Defendants ask that they be allowed to supplement the administrative record by taking discovery and offering expert testimony. This, they argue, would allow them to explain and fill in any gaps that exist in the administrative record due to the absence of a full Model. Although ostensibly an attractive solution, supplementation of the record would be an unusual remedy under these circumstances. To review, the complaint is that the Government destroyed certain files that were used in running its fate and transport model. In the typical case, the party asking for supplementation seeks to add missing documents into the administrative record. *See, e.g., Kent County, Delaware Levy Court v. U.S. E.P.A.*, 963 F.2d 391 (D.C. Cir. 1992) (internal EPA documents added to the administrative record). But here, the missing files apparently no

longer exist. They *cannot* supplement the record. The Defendants propose to conduct discovery and provide expert testimony, but none of that will bring back the files they say they need. Accordingly, the remedy sought does not solve the problem the Defendants have identified.

The Defendants also suggest that supplementation is required because expert testimony is necessary to explain the problems with the models the Governments used. If the Model no longer exists (at least in its most complete form), the Governments are simply asking the Court to take their word for the fact that their “black box” produced viable results. But once again, testimony from additional experts will not bring back the missing files. Moreover, any problems in the Model would have existed *regardless* of whether the missing files were destroyed or not. If the files still existed, expert testimony would *not* be available to question the Model along the lines the Defendants now propose. It is thus unclear why additional inquiry should be allowed simply because certain files might be missing. In other words, the expert testimony proposed by the Defendants does not address anything pertaining to the loss of the files, nor does it propose to fill in any of the missing gaps or explain anything that might now be unclear because the files have been lost. (Def. Br. at 23, Dkt. # 388.) As noted earlier, the proposed remedy of supplementation is not correlated to the problem the Defendants have identified because expert testimony and further discovery would not remedy any gaps in the record that might exist.

A final problem with the Defendants’ proposal is that it overlooks an important aspect of judicial review, which was highlighted in Part A above. Although it is clear that the administrative record does not have every single data file in it, that does not mean the record is hopelessly incomplete for purposes of review in federal court. If the goal in this Court were to analyze every

conclusion and assumption to test their scientific merit, the Defendants might have a point, because it seems clear that reproducing the Model in exactly the same fashion as it was originally run will now be difficult or impossible. But of course that is not the goal of review at this stage. The question is not whether the Governments arrived at the perfect, scientifically demonstrable, solution to the PCB problem—it is whether they arrived at a solution that was neither arbitrary nor capricious. Arbitrary and capricious review applies whether the record is supplemented or not. *Kent County, Delaware Levy Court*, 963 F.2d at 398 (applying arbitrary and capricious standard after supplementing record).¹

In short, determining whether the remedy was arbitrary or capricious does not require reproducing a Model that has already been run, at least under these circumstances. The Model was not prepared in a dark room by an unnamed graduate student but was developed over several years with public input. A 124-page summary report on the Model was prepared by the DNR in 2001, replete with data and graphs. (Dkt. # 439, Ex. 15.) The Governments provided a 300-plus page report of *twenty* case studies from other dredging sites. (*Id.* at Ex. 1-3.) The record also contains other ample evidence explaining the Governments' methods and assumptions in developing the Model and, more generally, the remedy. I am satisfied that the record is ample enough to allow a reviewing court to determine if the remedy selected fails the arbitrary and capricious standard.

¹Although in some cases supplementation of the record would mean *de novo* review of the materials added to the record (because they had not been considered by the agency), that does not mean that the entire remedy is subjected to *de novo* review merely by virtue of the supplementation of additional information. The purpose of supplementing the record is to explain gaps or provide technical guidance—not to undo the entire administrative scheme and eliminate the deference that the EPA is owed in selecting the remedy.

Accordingly, the Defendants' motions for summary judgment [Dkt. # 386, 402] are **DENIED**.² The motion for leave to file a sur-reply [458] is **GRANTED**.

SO ORDERED this 30th day of August, 2012.

s/ William C. Griesbach

William C. Griesbach
United States District Judge

²NCR asks that it be allowed to supplement the record on the so-called "6/10 Rule," but I am satisfied that such a rule has not been adopted thus far. As such, it would be premature to incorporate a review of a rule whose existence is not even certain.